

To the Commissioner of Patents & Trademarks:

This is an application for Letters Patent of the United States of America on an invention  
entitled

**DISPOSABLE ADHESIVE DELIVERY PAD FOR DENTAL CLEANING PASTES AND  
SOLUTIONS**

by Theodore P. Croll of Mechanicsville, Pennsylvania, a citizen of the United States of America.

# DISPOSABLE ADHESIVE DELIVERY PAD FOR DENTAL CLEANING PASTES AND SOLUTIONS

## FIELD OF THE INVENTION

The present invention relates to devices for hand-holding tooth preparation compounds in dentistry. More specifically, it relates to a paste or solution holding device which is adhesively attached to the dentist's or hygienist's glove.

## BACKGROUND OF THE INVENTION

In dentistry, a dental cleaning is called a prophylaxis and the cleaning paste is called prophylaxis paste. Such paste is most commonly provided in two ways: either in bulk in a large container from which one scoops out a portion with a spatula, or in individual dose cups. The paste is usually placed into a plastic or metal cup retainer attached to the dentist's or hygienist's gloved finger as it is being used. The individual dose cups are sometimes attached to the glove by an adhesive dot with adhesive material on both sides to retain the cup to the glove. The problem with some of these systems of holding the working compound is that the plastic or metal cup holders traditionally used require cleaning and sterilization.

## SUMMARY OF THE INVENTION

In order to solve the problems in the art described above, the present disposable adhesive pad has been devised. The invention comprises a foil sheet of semi-rigid laminated material which includes adhesive on portions of opposing top and bottom surfaces. On a portion of the top side an adhesive is covered by a peel-off label that preferably includes advertising. The remainder of the top surface is a substantially frictionless foil surface. The opposite bottom side is also provided with an adhesive on a portion of its surface. The foil is a medical metal foil that is

1 insoluble in saliva, prophylactic paste, and water.

2       The device is substantially planar, however two wings may be formed along foldlines  
3 which provide sidewalls that extend upwardly from the top surface and contain the paste, holding  
4 it on the foil portion of the pad. If the adjacent walled portion is used to contain the paste, it may  
5 be picked up by the rotating rubber cleaning cup as needed during the dental cleaning. When the  
6 top side label is peeled off, the adhesive underneath is available for placement of the dose cup type  
7 of prophylactic paste packaging. Once the cleaning is completed, the rubber glove is removed  
8 and the prophy pad discarded along with any residual paste. The present invention provides a  
9 totally disposable device that saves time and trouble of cleaning and sterilization required by the  
10 traditional plastic or metal cup holders. Other objects and advantages of the present invention  
11 will be readily apparent to those of skill in the art from the following drawings and description of  
12 the preferred embodiments.

### 13 DESCRIPTION OF THE DRAWINGS

14       Figure 1 is a front elevation view of a series of disposable pads positioned on a carrier  
15 strip. One pad is partially peeled back to expose the adhesive on the bottom side.

16       Figure 2 is a top right front perspective view of a delivery pad of the invention.

17       Figure 3 is a top right front perspective view with angled sidewalls folded upwardly.

18       Figure 4 is a top left rear perspective view of the present invention placed on a gloved  
19 hand while in use.

20       Figure 5 is a front view of the invention.

21       Figure 6 is a front view of the invention with the label partially peeled from the top side of  
22 the delivery pad.

Figure 7 is a top front isometric view of the invention alternately used to adhesively hold a prophylactic dose cup on the glove of the dental clinician or hygienist.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to Figure 1, the present invention is shown in its bulk manufactured state comprising a plurality of delivery pads 7 adhesively held on the manufacturing carrier strip 9. Because the invention is comprised of several adhesively laminated paper components, it may be produced inexpensively by label manufacturing equipment. Each individual delivery pad may be peeled off the carrier strip as it is needed just before use. The pad farthest to the right in Figure 1 reveals an adhesive 10 on the bottom side of the pad, which after removal from the carrier strip, is immediately pressed against the hand or clinician's glove to hold the pad in place as shown in Figure 4 below. The bottom side adhesive material does not cover the undersides of the fold-up wings 14 but covers the rest of the underside to provide firm attachment to the glove.

Referring now to Figure 2, the delivery pad of the invention includes two main portions, a containment or delivery portion 11 and an attachment portion 13. The attachment portion includes a top side adhesive covered by a releasable paper label that preferably includes advertising 15. Scored foldlines 17 and 19 on the delivery portion allow sides of the delivery pad to fold upwardly to provide containment sidewalls 14 for a dental paste or other working material as shown in Figure 3.

Referring now to Figure 4, the delivery pad 7 is shown attached to the glove 18 of the clinician with the sidewall wings folded upwardly to create a containment pocket on the delivery portion so that the paste 16 may be scooped in the usual fashion with the rubber cleaning cup of the clinician's handpiece 21. A metal foil provides an ideal surface of reduced friction to

adequately hold the paste yet permits its easy removal. The foil material is preferably of the type such as 7 pt. 5 silver foil laminated board produced by the Fasson Roll North America, a division of Avery Dennison.

Referring now to Figures 5, 6, and 7, the present invention is shown in a different application. As shown in Figure 5, the invention is identical having a delivery portion 11 and attachment portion 13 except that as illustrated in Figure 6, the top paper cover 24 of the attachment portion 13 of the label is removed to reveal an adhesive layer 23 underneath. The result is a foil substrate with adhesive on both sides. When in use as shown in Figure 7, one side holds the foil board 25 to the glove 27 while the top side may be used to hold a dose cup 29 for prophylactic paste or other dental material thus securing the cup to the glove. In this application, the delivery pad is not used but it provides a second utility for the invention if the clinician desires to use a dose cup.

From the foregoing, it will be readily understood by those of skill in the art that the present invention provides both a disposable dental paste delivery system for bulk dental pastes or other dental materials and also a convenient means of attachment of material packaged in the form of a dose cup. Because it can be inexpensively produced by label-printing manufacturing methods, the addition of printed advertising on the top cover of the attachment portion may be inexpensively included as an additional benefit. Also, although the preferred embodiment shows the use of two upwardly folded angled sidewalls, it will be understood that a greater number of sidewalls formed along additional foldlines may similarly be employed to contain the working material. It should be understood that there may be other modifications and changes to the present invention that will be obvious to those of skill in the art from the foregoing description,

- 1 however, the present invention should be limited only by the following claims and their legal
- 2 equivalents.